

REMARKS

By the above amendment, claims 3, 7, 23 and 24 have been canceled without prejudice or disclaimer of the subject matter thereof, independent claims 1, 5, 11, 21 and 25 have been amended to clarify and recite further features of the present invention with previous independent claims 2 and 6 being amended to be in dependent form dependent upon claims 1 and 5, respectively.

Applicants note by the present amendment, the independent claims have been amended to recite features of the present invention as illustrated in the flow chart of Figure 6 of the drawings of this application and as described at page 14, line 17 to page 17, line 4, for example, in terms of the steps S61-S78 of Fig. 6. That is, as described and as illustrated, the present invention provides to acquiring image signals of a sample of plural optical conditions as represented by steps S61-S66, setting a test inspection condition based on information obtained from the plural image signals acquired as represented by steps S67-S69 undergoing test inspection as represented by step S70, setting an inspection condition by using the information of true defects of false defects from the result of the test inspection as represented by steps S71-S75, confirming the inspection as represented by steps S76-S77, and therefore setting the inspection condition and that the condition procedure is completed as represented by step S78. More particularly, the claims have been amended to recite in terms of the method and apparatus, referring to claim 1, for example, to recite the features of repeatedly obtaining image signals of a same portion of a sample by imaging the sample through an optical system by changing optical conditions as is described in connection with steps S61-S66 of Fig. 6,

analyzing the repeatedly obtained image signals and selecting plural optical conditions which decrease the difference of contrast in the image signal among segments corresponding to a plurality of regions on the sample as obtained with steps S64-S66, for example, obtaining image signals of the sample under the selected plural optical conditions by imaging the sample with the optical system as described in connection with steps S64-S66, evaluating images obtained under the selected plural optical conditions to adjust optical conditions for inspection as represented by steps S68-S69, and detecting a defect of a sample by processing the image signals of the sample under the adjusted optical conditions as represented by steps S70-S78, for example. Applicants note that the independent claims have been amended to recite the aforementioned features and applicants submit that such features are not disclosed or taught in the cited art as will become clear from the following discussion.

The rejection of claim 6 under 35 USC 102(b) as being anticipated by Maeda et al (5,774,222); the rejection of claims 1 - 2, 4, 5, 21 - 26 under 35 USC 103(a) as being unpatentable over Maeda et al (5,774,222) in view of Worster et al (5,479,252); and the rejection of claim 7 under 35 USC 103(a) as being unpatentable over Maeda et al (5,774,222) in view of Fujita (6,535,621), such rejections are traversed insofar as they are applicable to the present claims and reconsideration and withdrawal of the rejections are respectfully requested.

Turning to Maeda et al, irrespective of the Examiner's contentions concerning the disclosure of Maeda et al and in particular, column 22, lines 25 - 65 and column 23, lines 15 - 40, provide no disclosure or teaching of the features of the independent claims of this application with respect to repeatedly obtaining image signals of the

sample portion of a sample by imaging the sample by changing optical conditions, analyzing the repeatedly image signals and selecting plural optical conditions which decrease a difference of contrast in the image signals among segments corresponding to a plurality of regions on the sample or in which defect detection sensitivity is increased, obtaining the image signals of the sample under the selected plural optical conditions, evaluating images obtained on the selected plural optical conditions to adjust optical conditions for inspection, and thereafter, detecting a defect of the sample by processing image signals of the sample under the adjusted optical conditions. Applicants submit that Maeda et al merely discloses that depending upon the pattern of the object to be inspected, different filters or the like may be utilized, but fail to disclose the method and apparatus, as described above, and now recited in the claims of this application. Accordingly, applicants submit that all claims present in this application patentably distinguish over Maeda et al in the sense of 35 USC 102 and/or 35 USC 103.

As to the combination of Maeda et al with Worster et al or with Fujita, applicants submit that neither Worster et al nor Fujita overcome the deficiencies of Maeda et al, as pointed out above. Applicants submit that the Examiner recognizes that Maeda et al does not explicitly disclose having at least two images being obtained through repeated inspection but contends that Worster et al teaches in an inspection repeatedly obtaining images while scanning and would be obvious to one of ordinary skill in the art at the time the invention was made to have the inspection device repeatedly obtain images in order to have a complete portion of a wafer inspected such as one line of the wafer in the x-direction. Applicants note that Worster et al does not carry out repeated imaging of a same portion of a sample nor

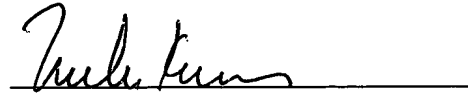
the evaluating of the obtained images in order to adjust an optical condition for inspection purposes in the manner recited in the claims of this application. As to Fujita, the Examiner cites Fujita as teaching a secondary differentiation and secondary threshold to detect a second group of defect types, but hereagain, applicants submit that Fujita fails to disclose or teach the repeated the imaging of a same portion of a sample under changing optical conditions while selecting the plural optical conditions for the purpose indicated and evaluating images obtained under the selected plural optical conditions to adjust optical conditions for inspection, as recited in the independent and dependent claims of this application. Thus, applicants submit that the combination of Maeda et al with Worster et al or Fujita fail to provide the claimed features as set forth in the independent and dependent claims of this application in the sense of 35 USC 103 and all claims should be considered allowable thereover.

As to the dependent claims, it is noted that the dependent claims recite further features which when considered in conjunction with the parent claims, further define features of the present invention and patentably distinguish over the cited art. Thus, the dependent claims should also be considered allowable at this time.

In view of the above amendments and remarks, applicants submit that all claims present in this application should now be in condition for allowance and issuance of an action of a favorable nature is courteously solicited.

To the extent necessary, applicant's petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (520.40997X00) and please credit any excess fees to such deposit account.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Melvin Kraus', is written over a horizontal line.

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